

THERE IS CLAIMED:

1. Activated carbon having the following characteristics:

- CCl_4 number from 120% to 190%,
- P_2O_5 content at most equal to 2%,
- extraction pH greater than 7,
- bulk density from 0.18 g/ml to 0.32 g/ml, and
- electrical resistivity less than 1.5 ohm.cm.

2. The activated carbon claimed in claim 1 when it has a BET surface area of at least 2 000 m^2/g .

3. The activated carbon claimed in claim 1 when it has a BET surface area of at least 1 800 m^2/g .

4. The activated carbon claimed in claim 1 when it has an iodine number of at least 1 750 mg/g.

5. The activated carbon claimed in claim 1 when it has a butane adsorption coefficient of 45% to 75%.

6. The activated carbon claimed in claim 1 when it has a ball-pan hardness of at least 65%.

7. The activated carbon claimed in claim 1 when it has a particle size distribution in which the particle size is less than 4.75 mm and greater than 0.15 mm.

8. The activated carbon claimed in claim 1 when it is a powder with a particle size less than 212 microns.

9. The activated carbon claimed in claim 1 when it has a micropore volume of at least 0.50 ml/g and a mesopore volume of at least 0.30 ml/g.

10. A process for manufacturing an activated carbon, said process comprising the following stages:

- preparing a precursor activated carbon by chemically activating a starting material with phosphoric acid,
- neutralizing said precursor with an aqueous solution, and
- thermal activation.

11. The process claimed in claim 10 wherein said precursor is obtained by chemically activating wood with

phosphoric acid.

12. The process claimed in claim 10 wherein said precursor has the following characteristics:

- CCl_4 number from 60% to 120%,
- P_2O_5 content from 3% to 12%,
- extraction pH from 1 to 2,
- bulk density from 0.18 g/ml to 0.32 g/ml, and
- electrical resistivity greater than 500 ohm.cm.

13. The process claimed in claim 12 wherein said precursor additionally has the following characteristics:

- butane adsorption coefficient 22% to 47%,
- iodine number at least 900 mg/g,
- BET surface area at least 900 m^2/g , and
- ball-pan hardness from 50% to 65%.

14. The process claimed in claim 10 wherein said neutralization is carried out with urea or ammonia.

15. The process claimed in claim 10 wherein the base/precursor ratio is from 0.1 to 0.3.

16. The process claimed in claim 10 wherein the water/precursor ratio is from 1.5 to 2.5.

17. The process claimed in claim 10 wherein said neutralization includes drying in order to reduce the water content of said product to less than 10%.

18. The process claimed in claim 10 wherein said activation is carried out at a reaction temperature from 800°C to 1 000°C.

19. The process claimed in claim 10 wherein said activation is carried out in a furnace in the presence of steam and/or carbon dioxide.

20. The process claimed in claim 10 wherein said precursor has a particle size greater than the ASTM No. 70 sieve (212 microns) and further including a particle size grading stage.

21. Use of activated carbon as claimed in any of claims 1 to 9 for the treatment of water containing

organic matter.

22. Use of activated carbon as claimed in any of claims 1 to 9 to remove atrazine.

23. Use of activated carbon as claimed in any of claims 1 to 9 to remove chloramines.